# REHABILITATION OF EXISTING NON-CONFORMING BUILDINGS FOR PUBLIC SCHOOL AND CALIFORNIA COMMUNITY COLLEGE USE

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# ACRONYMS AND DEFINITIONS

## ACRONYMS

| | |
|---|---|
| ABS | a type of plastic pipe |
| ACS: | Access Compliance Safety |
| BMP | standard bit-mapped graphics file storage format used in the Windows environment. |
| CAD | Computer-aided design; a CAD system is a combination of hardware and software that enables engineers and architects to design products on-line. |
| CBC | California Building Commission |
| CBSC | California Building Standards Code |
| C.C.R. | California Code of Regulations (California Building Code, Title 24, Part 2) |
| CD | Compact Disc; a type of optical disk capable of storing large amounts of data |
| CD-ROM | Compact Disc-Read-Only Memory. |
| CHBC | California Historical Building Code |
| C.P.C. | California Plumbing Code |
| DGN | File extension for a CAD file |
| DOC | File extension for a Microsoft Word file |
| DSA | Department of General Services, Division of the State Architect |
| DSA-HQ | Division of the State Architect Headquarters; 1102 Q St, Sacramento, CA 95814. |
| DWV | Refers to Schedule 40 DWV … plastic pipe |
| DXF | Data Exchange File; a two-dimensional graphics file format supported by virtually all PC -based CAD products. It was created by AutoDesk for the AutoCAD system. |
| EE | Electrical Engineer |
| FLS | Fire and Life Safety |
| FTP | File transfer protocol; web-based portal to the DSA-IMS |
| HSP | Historic School Program |
| HSR | Historic Structures Report |
| IMS | Information Management System (the DSA document and storage retrieval system) |
| IR | DSA Interpretation of Regulations |
| JPEG | Joint Photographic Experts Group*;* a data compression technique for color images. |
| ME | Mechanical Engineer |
| PCB | Any of a family of industrial chemical compounds produced by chlorination of biphenyl noted as an environmental pollutant. |
| PDF | Portable Document Format, desktop application making it possible to send formatted documents that appear on the recipient's monitor or printer as intended. |
| PVC | a type of plastic pipe |
| SHBC | State Historical Building Code |
| SSS | Structural Safety Section |
| TIFF | Tagged image file format; for storing bit-mapped images on personal computers. |
| USPI | Uniform Standards and Procedures Initiative |
| WPD | File extension for a Word Perfect file |
| Xrefs | External references to a CAD file |

## DEFINITIONS

**AutoCAD, DataCAD Plus, VectorWorks:** These are various CAD applications.

**DSA Peer Review:** A review of the Report by a DSA consultant who acts as an advisor to the DSA for the evaluation of specific proposals within the Report.

**DSA Peer Review Consultant:** A DSA consultant selected from an approved consultant list to assist with evaluation of specific proposals in the Report. The DSA Peer Reviewer is not to be confused with the Owner's Peer Reviewer (see entry below) who is selected independently at the owner's discretion.

**eTransmit:** Refers to electronic file transfers.

**Evaluation and Design Criteria Report:** Also known as "the Report," this comprehensive document establishes the criteria for evaluation and design to be used by the project design professionals and by DSA staff during the project plan review. The Report establishes criteria for structural, fire and life safety, accessibility, mechanical, electrical and historical disciplines of construction. See Appendices C-M for detail.

**Interpretation of Regulations (IR):** A series of publications by the DSA intended for use by the plan review and field engineers of the DSA to indicate an acceptable method for achieving compliance with applicable codes and regulations.

**Owner's Peer Review:** An independent review of the evaluation and design criteria proposed by the project design professionals for the development of the Evaluation and Design Criteria Report in accordance with the requirements of Division VI-R, Title 24, C.C.R.

**Owner's Peer Reviewer:** A consultant hired by the owner, distinct from the project design professionals, to provide independent review and commentary on the design criteria in accordance with the requirements of Division VI-R, Title 24, C.C.R.

**Read me file:** A file that a submitting architect will send along with their drawings that provides file details like plot sizes for CAD files.

**Rehabilitation Coordinator:** Lead for the DSA in promoting consistency in implementation of the regulations and procedures for the rehabilitation of non-conforming existing buildings into school buildings; provides a knowledge/experience base in rehabilitation technologies, methodologies and retrofit materials when collaborating with or providing guidance to the DSA Regional Offices and Peer Review Consultants reviewing Evaluation and Design Criteria Reports; may attend preliminary meetings at the regional offices; leads group discussion with Supervising Structural Engineers, reviewers and Product Approval personnel at the DSA-HQ utilizing USPI processes to promote consistent application and evaluation of alternate materials; provides final recommendation to the Regional Manager for resolution of disagreement between clients, Peer Review Consultants and/or reviewers.

**Supervising Structural Engineer:** DSA Regional Office Supervisor overseeing construction project package submittals and processing.

**Transition:** Process by which a project is changed from one state to another. Example: A project can transition from an Intake Professional to a Supervising Structural Engineer.

**Preface: For the purposes of this document, references to "public school", "school building" and "school site" shall be intended to include California public schools, Kindergarten through 12th grade, charter school entities and California Community Colleges.**

# 1. BUILDING SELECTION

### 1.1 Owner's Initial Facility Assessment

It is the responsibility of the owner and their project team to initially assess any non-conforming site and facility being considered for rehabilitation to public school use. Initial facility and site assessment should be performed by California licensed design professionals, architects and engineers specializing in structural, fire/life safety, accessibility, mechanical, plumbing and electrical disciplines, who are knowledgeable in rehabilitation of existing structures and familiar with the design and construction of California public schools and community colleges. Likewise, when historical buildings are being considered, assessment should be performed by California licensed design professionals who are knowledgeable in preservation of existing historical structures. Owners are advised to refer to the Division of the State Architect (DSA) feasibility guideline *Adaptive Reuse: An Option for California's Schools* as an assessment tool along with other methods recommended by their design professionals. The guideline can be found on the DSA Webpage at:

http://www.documents.dgs.ca.gov/dsa/pubs/feasibility_guidelines_pub_dsa_reh_01.pdf

### 1.2 Applicability of Regulations

The regulations of Title 24, C.C.R. apply to any existing non-conforming building for purchase or lease by a district for use as a public school building or by a charter school entity for use as a charter school building required to comply with the Field Act.

The regulations of Title 24, C.C.R. may be utilized for California Community College buildings when:

1) DSA approval of the plans/specifications and certification of construction is required by the Education Code;
2) DSA approval is requested by the district for rehabilitation of any existing non-conforming building for purchase or lease for use as a California Community College school building.

NOTES: Section 81149 of the Education Code remains in effect for qualifying buildings and is not superceded by these regulations. All references to California Building Code (CBC) sections are to Title 24, Part 2, C.C.R. unless indicated otherwise.

The regulations prescribed in Sections 4-306 and 4-307 of Part 1, Title 24, C.C.R., are not required for seismic retrofit of existing certified school buildings when the rehabilitation is being constructed voluntarily by the district, and when the provisions of Section 4-309(c) that require structural rehabilitation are not met. However, these regulations and procedures may be utilized for any voluntary rehabilitation, thereby providing a standard to which the construction can be certified.

# 2. PRE-APPLICATION PROCEDURE

For each rehabilitation project, an Evaluation and Design Criteria Report (hereafter referred to as **the Report**) shall be prepared and shall include chapters for each of the disciplines of building construction: structural, fire/life safety, accessibility, mechanical, plumbing and electrical. When applicable, the Report shall include a chapter for historic buildings. The Report, to be approved by the DSA, establishes:

1) the criteria for the evaluation and design to be used by the project design professionals;
2) the material/system/equipment testing and condition assessment requirements.

**Summary of Fees** (fully defined in the following procedures):

1) Retainer fees will be required with submittal of a project Pre-Application;
2) DSA will prepare and submit to the applicant a cost estimate to complete full review of the Report for all disciplines, including consultants. Review will commence upon receipt of payment. Any estimated fees not expended in review shall be refunded to the applicant upon approval of the Report;
3) DSA may invoice for further fees if costs for review of the Report significantly exceed the estimated fees;
4) DSA may invoice for further fees if changes to the approved Report require significant further review for approval.

## 2.1 Design Professional Tasks

**2.1.1. Historic Building Site Determination.** Owner/design professional may determine whether the proposed facility is a registered historic building or site; if historic, the procedures specified in Appendices L and M shall be followed.

2.1.1.1. Per the procedures of Appendix M, the architect or owner's representative shall:

1) Contact the DSA Supervising Structural Engineer to notify the DSA of the historic project proposal,
2) Discuss requirements for a preliminary Historic Structures Report (HSR),
3) Schedule an appointment with the DSA Supervising Structural Engineer and the DSA Historic School Program Manager for a pre-Report consultation meeting to discuss use of the State Historic Building Code (SHBC).

2.1.1.2. A preliminary HSR (2 paper copies or electronic file) shall be submitted to the DSA Regional Office Supervising Structural Engineer per Appendix L prior to the pre-Report consultation meeting.

2.1.1.3. Conduct a pre-Report consultation meeting with the DSA Supervising Structural Engineer and the DSA Historic School Program Manager.

**2.1.2. Initial Evaluation.** Consult with project structural, mechanical, electrical engineers and specialty consultants, as appropriate, to conduct an initial evaluation of the building and develop a retrofit scheme for the analysis and design of the building.

2.1.2.1. Selection of structural rehabilitation methodology:
The structural engineer shall propose the method of structural evaluation and design as defined in Division VI-R, which includes Method A, Method B and the current effective edition of the CBC.

2.1.2.2. When Method B for structural rehabilitation is utilized:

The owner shall contract with an independent structural Peer Reviewer (consultant) to provide subject matter expertise to the design team in accordance with Section 1649A, Division VI-R.

2.1.2.3. The architect or owner's representative may request a preliminary meeting for any rehabilitation project involving Methods A or the CBC and shall schedule an appointment for any rehabilitation project involving Method B with a structural engineer, the Owner's independent structural Peer Reviewer and a DSA representative for a pre-Report consultation meeting discussing and establishing:

- Scope of work for the rehabilitation of the building and site for all disciplines.
- Appropriate structural evaluation and design methodology.
- Scope of work of the Owner's independent structural Peer Reviewer.

**2.1.3. Evaluation and Design Criteria Report.** The Report shall propose criteria for rehabilitation of the structural, fire life-safety (FLS), accessibility (ACS), mechanical, plumbing and electrical disciplines, and criteria for historic buildings when applicable. (For structural, see Section 1640A.8.2, Division VI-R; for FLS, ACS, mechanical, plumbing, electrical, and historic, see Appendices C-M.)

2.1.3.1. When Method B for structural rehabilitation is utilized, the Owner's independent structural Peer Reviewer shall review the Report and prepare a report on his/her findings and the proposals; see Section 1640A.8.3, Division VI-R.

**2.1.4. Project Pre-Application.** Begin the Pre-Application process included in the Report per one of the two processes described below. Both processes utilize a web-based FTP site as a portal to the DSA-IMS system which will provide communication between the DSA and design professionals. Notifications will be provided by the DSA-IMS system at specific milestones.

2.1.4.1. Semi-electronic Submittal Process:
Submit to the DSA Regional Office a Pre-Application (DSA-1 REH); pre-application retainer fees; and provide an electronic file (on CD) that includes the following:

- The Report electronically signed by the design professional in responsible charge of the design;
- Existing plans and specifications (or as-built plans);
- Available construction documents including test and inspection reports and
- Any change documents.

*See Appendix A for specifications on formatting the electronic files on CD.*

Upon notification by the system, the design professional uses the Login and Password information provided by the DSA to retrieve from the FTP system online:

- The DSA approved Report; or
- DSA recommendations to the Report that will require response.

The DSA will register the design professionals and owner's representatives into the IMS and notify them that the project is ready to proceed.

2.1.4.2. On-line (Fully Electronic) Submittal Process:
The online submittal process requires that the design professional registers his/herself and the project on FTP. The registration process establishes the Login and Password into the system, the Pre-Application number for the project, and file folder into which the project files are to be uploaded.

*See Appendix A for specifications on formatting the electronic files.*
*See Appendix B for the online, fully electronic, process.*

Upon notification by the system, the design professional uses the Login and Password information to access the FTP system online for retrieval of:

- The DSA approved Report; or
- DSA recommendations to the Report that will require response.

Mail a paper copy of the Pre-Application and the retainer fee to the Cashier at the DSA Regional Office, or submit the retainer fee through the Electronic Funds Transfer (EFT) process (contact the DSA-HQ Accounting Office, (916) 445-8100, for information).

**2.1.5. Initial Fees Review.** Upon receipt of the Pre-application, the DSA Supervising Structural Engineer will assess the workload scope for review of the Report by all disciplines and, if greater than the initial retainer fee, provide an invoice for any additional estimated fees for the complete review. The applicant shall provide the additional estimated fee prior to start of the Report review. For information regarding Electronic Funds Transfer (EFT) process, contact the DSA-HQ Accounting Office.

**2.1.6. Final Fees Review.** When all aspects of the Report have been reviewed and the Report is ready for Supervising Structural Engineer's approval, the DSA may invoice any final fees incurred above the initial retainer and estimated fees, for the complete review of all disciplines of the Report. If estimated fees exceed the final fees by more than $25.00, then the DSA will refund the difference. **Final fees must be received by the DSA prior to approval of the Report.**

**2.1.7. Returned Report.** If the DSA does not approve the Report as proposed and returns the Report with recommendations for response, the design professional shall:

1) Make amendments to the Report as appropriate, and
2) Return amended Report to the DSA reviewer for approval.

Repeat steps 2.1.2.1 (if necessary), 2.1.3 and 2.1.4 until the DSA approval is achieved.

**2.1.8. Approved Report.** Upon receipt of a DSA approved copy of the Report, design development of the project may begin, as directed by the owner.

### 2.5 Owner's Independent Structural Peer Reviewer Tasks

When Method B for structural is used, the Owner's independent structural Peer Reviewer shall review the design professional's Report, provide guidance to the design team and prepare an independent report in accordance with Section 1640A.8.3, Division VI-R.

## 3. DESIGN DEVELOPMENT PHASE

### 3.1 Design Professional Tasks

**3.1.1. Analysis Methods.** Conduct analyses compliant with the methodologies defined in the approved Report.

**3.1.2. Changes to Approved Criteria.** If changes to the approved criteria are necessary, submit an electronic file of the specific amended section(s) of the Report to the DSA for approval. Amendments shall be clearly identified with the amendment date and a sequential amendment identification/reference number; and shall be electronically signed by the design professional in responsible charge. The DSA may charge fees incurred for review of changes.

3.1.2.1. When Method B for structural is used, changes to the approved Report shall be reviewed by the Owner's independent structural Peer Reviewer, and a supplemental report shall be provided addressing the change similar to Section 2.1.2.1.

**3.4 Owner's Independent Structural Peer Reviewer Tasks**

- When Method B for structural is used, the Owner's independent structural Peer Reviewer shall: Review the design development progress and structural calculations for conformance with the approved design criteria defined in the Report,
- Prepare a report in accordance with Section 1640A.8.3, Division VI-R.

If changes to the approved criteria are required, the changes to the approved Report shall be reviewed and a supplemental report provided addressing the change (similar to Section 2.5).

## 4. CONSTRUCTION DOCUMENT PHASE

**4.1 Design Professional Tasks**

**4.1.1. Complete design and construction documents in compliance with approved Report.**

**4.1.2. Changes to approved criteria.** If changes are necessary, submit an electronic file of amendments in accordance with Section 3.1.2.

**4.4 Owner's Independent Peer Reviewer Tasks**

When Method B for structural is used, the Owner's independent structural Peer Reviewer shall review the construction documents prior to submittal of the project to the DSA for plan review for conformance with the approved design criteria defined in the Report, and prepare a report in accordance with Section 1640A.8.3, Division VI-R.

**4.4.1. Changes to approved criteria.** If changes are necessary, see Section 3.4.1.

## 5. PROJECT APPLICATION SUBMITTAL

**5.1. Design Professional Tasks**

Prepare project application package and submit to the appropriate DSA Regional Office: project application, plans and specifications, existing construction documents (as-built plans) not previously submitted, reports from tests and investigations as required by the approved Report; Fees in accordance with Part 1, Title 24, for a new building.

## 6. PLAN REVIEW, CONSTRUCTION REVIEW AND PROJECT CERTIFICATION PROCEDURES

**6.1. Design Professional Tasks**

Obtain approval of project plans and specifications, and all changes to project plans and specifications during construction; submit required documents for project certification in accordance with Part 1, Title 24, for a new building.

6.1.1. If change(s) to the approved structural criteria — as incorporated into the approved plans and specifications — are necessary during construction, the Owner's independent structural Peer Reviewer shall review the change.

**6.4. Owner's Independent Peer Reviewer Tasks (when consulted)**

If changes to the approved structural criteria, as incorporated into the approved plans and specifications, are necessary during construction, the Owner's independent structural Peer Reviewer shall review the change and provide a report in accordance with Section 1640A.8.3, Division VI-R.

# SPECIFICATIONS FOR ELECTRONIC FILE FORMAT

## APPENDIX A

## TECHNICAL REQUIREMENTS FOR SUBMITTING ELECTRONIC FILES

### A.1. - File Format:

- CAD Drawings:

DWG for *AutoCAD*, DGN for *Microstation*, non-AutoCAD users (e.g. *DataCAD Plus, VectorWorks*) are to export drawings into DWG or DXF format.

Translation into DXF may lead to incompatibility and other performance issues. For more information , the white paper by OpenDWG Alliance is available at: http://www.opendwg.org/about/whtpaper/whynot.htm

- Images (Scans):

  TIFF, JPEG and BMP for image files and reference drawings.

- Other Document Formats:

  PDF (preferred choice), DOC, WPD for specifications, calculations, soil reports, etc.

### A.2. - Packaging Electronic Information: CD or FTP

- For FTP & CD, the files should be compressed by WinZip. This reduces the collective size of transferred files and makes submittal a single file transfer. For submittal with CD, ensure the CD is unlocked and is readable by any standard CD-ROM drive.
- *AutoCAD* users can use the "eTransmit" feature to pack the drawings and all associated files into a self-extracting executable compressed transmittal set. (For eTransmit, enable the command on "remove paths from Xrefs and image**s.**")

**A.3. - Font, Typeface (CAD Submittals):** Submit all custom fonts and any non-standard fonts.

User may submit a font-mapping file to identify any alternate substitution.

**A.4. - Xref (CAD Submittals):** Bind all external references to the drawing**.**

All Xrefs such as title block, keynotes and legends are to be bound.

**A.5. - Layers And Scaling (CAD Submittals):** Flatten all layers on all images files.

Paper space strongly recommended on all drawings to be reviewed by the DSA.

### A.6. - List Of Content And Files Organization (CAD Submittals):

Provide an index file and organize drawings into folders such as Architectural, Structural, Electrical and Mechanical.

A simple read me file should be submitted to clarify the title of all drawings, the file naming convention and any unusual settings or special instruction to download. Each drawing is to be contained in one file.

**A.7. - Plotting Instruction (CAD Submittals):** Description of pen setting and page set-up.

A simple "read me" file to explain the plotting configuration or if certain layers should be turned off. Indicate the use of any required object enabler.

# APPENDIX B

## ONLINE (FULLY ELECTRONIC) SUBMITTAL PROCESS

### Phase 1: REGISTER A REHABILITATION PROJECT ONLINE

To submit a Pre-Application (Pre-App) online, an architect goes to Internet site www.dsa.dgs.ca.gov and clicks Pre-App link.

If the architect calls a DSA Regional Office, he/she will be directed to this link.

**1-** Registering for online submittal (required for each project). This can be accomplished by calling 916.322.3727 or going to www.applications.dgs.ca.gov/dsa/preapp/step1a.asp and filling out the registration form. A return email address is **mandatory** for all online submittals.

**2-** Following registration, an email will be sent out to the address provided in the registration form. This email will include:

a. A phone contact 916.445.6944 to schedule web based training on the system.
b. Web location for do-it-yourself instructions on how to upload and download files.
c. Instructions on how to prepare files for submittal to DSA.
d. Login and password for the system.

### Phase 2: SUBMIT PRE-APPLICATION & UPLOAD FILES

This is the Pre-Application form in PDF format. (Form only)

Architect collects all documents he/she will submit in a single folder so that upload to DSA is simplified.

FTP is an existing application on the Internet for file transfers.

**1-** Go to www.dsa.dgs.ca.gov/forms and click Pre-Application. Fill out the Pre-Application (Pre-App), sign the form using an Entrust digital signature, and save the original Pre-Application to your local PC.

**2-** Move electronic copies of plans or scanned images of plans, Pre-Application report, specifications, construction documents, test and inspection reports and the Evaluation and Design Criteria Report (the Report) electronically signed by the design professional, into a folder on your local PC.

**3-** Log into ftp://dsaftpHQ.dgs.ca.gov, using the login and password provided at time of registration. Upload above files into established Pre-App folder, per the instructions provided in training or in do-it-yourself instructions.

**4-** Mail retainer check to DSA Regional Office with login name in Memo field or do EFT.

The upload folder name will be the same as the Pre-App eTracker number.

An architect with more than one project will have a single login that shows multiple folders. He/she uploads files to the appropriate project.

### Phase 3: DSA PROJECT INTAKE

**What is Transition?**

Transitioning is a process by which a project is changed from one state to another. For example, a project can be transitioned from Intake to the Supervising Structural Engineer.

**1-** When files are uploaded to a folder, email notification is sent to the Cashier at the DSA Regional Office.

**2-** Upon receipt of retainer, the Cashier opens the Pre-Application in ftp://dsaftpHQ.dgs.ca.gov and enters the information into eTracker. Cashier processes check.

**3-** The Cashier clicks the Notify button in eTracker, and the IMS Administrator is notified that a new project is now available for upload.

**4-** The IMS Administrator uploads all files from FTP to the IMS, and transitions. Email notification is sent to the DSA Regional Office Supervising Structural Engineer (SSE) upon transition.

**How does one Transition & what happens?**

To transition a project between phases, a user “right clicks” the mouse while on the application document and selects “Transition”. The next person in the workflow is notified that they now have control of the project. The workflow is defined in the IMS.

## Phase 4: PROJECT SCHEDULING

The transition process will provide the SSE with a list of possible staff, contractors and the Rehabilitation Coordinator to whom the project may be transitioned.

The Rehabilitation Coordinator is a role that can be assigned to anyone by the DSA-HQ management. The SSE will just see the role in a dropdown list; the individual who performs this role may vary.

**1-** The SSE reviews the IMS folder and determines:
   a. If the information provided is adequate to approve the Pre-Application.
   b. If the project will be reviewed internally or by a contract consultant.
   c. If the project needs to be elevated to the Rehabilitation Coordinator.
   d. Whether to prepare an additional estimated fee. If so, notifies Cashier to invoice.

**2-** Cashier invoices for additional estimated fee. Notifies Supervising Structural Engineer upon receipt.

**3-** Once the SSE has made the above determination and estimated fees have been received, then he/she transitions the project to the appropriate reviewer next in the workflow (plan review staff, Rehabilitation Coordinator or DSA Peer Review Consultant). The SSE selects from a list of plan review staff, the Rehabilitation Coordinator and contract firms.

**4-** When a Peer Review Consultant is assigned, the IMS Coordinator is notified so he/she can register the consultant and grant them rights to FTP for this project, i.e., the login and password to the system and the project Pre-App number.

Notification is sent "FYI" to the Rehabilitation Coordinator.

## Phase 5a: PRE-APPLICATION REVIEW BY THE DSA

1- Report reviewer gets email notification and clicks on the link in the notification to go to the required folder in the IMS.
2- Reviewer evaluates report, interacting with Rehabilitation Coordinator and/or the DSA Peer Review Consultant as necessary (see Phase 5b).
3- Upon completion, reviewer returns all comments to the design professional directly via email or transfer through IMS/FTP.
4- Design professional addresses comments and returns to DSA, via email or transfer through FTP into IMS.
5- On conclusion of the review process, structural reviewer verifies all disciplines are complete and transitions the project to the next phase. Each reviewer updates status and inputs time spent in eTracker Status screen. Structural reviewer inputs consultant status and time.

## Phase 5b: PRE-APP REVIEW BY DSA PEER REVIEW CONSULTANT

1- Upon transition by the SSE, the DSA Peer Review Consultant is notified of the project via email.
2- The consultant contacts the SSE and goes through the contracting amendment process.
3- The consultant logs into ftp://dsaftpHQ.dgs.ca.gov and downloads the project files (using pre-assigned login and password).
4- The DSA Peer Review Consultant evaluates report, interacts with SSE, Rehabilitation Coordinator and/or Regional Office Reviewer, and makes recommendations to the DSA through email or transfer through the IMS.

## Phase 6: SSE REVIEW AND APPROVAL OF REPORT

1- Structural reviewer notifies the SSE that the Pre-Application Report is ready for approval. (Notification is sent when the SSE transitions the project out of review)
2- The SSE logs into the IMS, performs a summary review of the work, and if acceptable:
   a. Notifies Cashier to prepare Actual Fee Worksheet and determine if final fees are required. If so, Cashier invoices applicant.
   b. Upon receipt of final payment, Cashier notifies SSE.
   c. Applies an electronic Approved stamp and digital signature to the Pre-Application Report;
   d. Transitions the project to the approved state.
3- Transition sends email to the IMS Administrator who moves the final documents to the external folder in FTP and transitions the project for return to the architect.

## Phase 7: RETURN OF APPROVED REPORT

1- The architect and owner's representative may receive final invoices when the Report is ready for approval. The DSA will only approve the Report upon receipt of final payment.
2- Upon approval, the architect and owner's representative receive email notification that a Pre-App Report has been approved and is ready for retrieval from FTP.

# REQUIREMENTS FOR THE EVALUATION AND DESIGN CRITERIA REPORT – ACCESSIBILITY CHAPTER

## APPENDIX C

### C.1 - Procedures for DSA Approval of the Evaluation and Retrofit Design

During the schematic phase of the project, the owner or the design professional in responsible charge of design shall perform initial data collection and assessment of the building and prepare and sign an Evaluation and Design Criteria Report for Accessibility. The Report shall establish the design criteria for the rehabilitation by identifying deficiencies in the existing conditions and propose remediation in compliance with Title 24 accessibility regulations as defined in Appendix D. The Report shall be submitted to the DSA for review and approval of the proposals prior to proceeding with design development of the rehabilitation. The DSA shall review the Report to determine that each item identified in this Appendix has been satisfactorily addressed. If the DSA determines that one or more items are not satisfactorily addressed or the DSA does not concur with any of the proposals, the Report shall be returned to the design professional for correction. Upon concurrence that all items have been satisfactorily addressed by the proposals in the Report, the DSA shall approve, sign and return a copy of the signed Report to the owner.

If changes to the approved criteria are determined to be necessary during design development and completion of construction documents, the project design professional shall submit an amendment to the Report for the particular discipline to the DSA for approval.

Upon completion of the design, the plans and specifications shall be submitted to the DSA for approval per the provisions of Part 1, Title 24.

### C.2 - Initial data collection and assessment

Initial data collection and assessment shall include:

1. Visit(s) to the sites, buildings and facilities.

2. Data collection, analysis and evaluation of existing site, building and facility conditions in accordance with Appendix D.

3. Review of original plans, specifications and associated construction documents. Where original building and site plans and specifications are not available, “as-built” plans shall be prepared that accurately depict the existing building and site.

### C.3 - Evaluation and Design Criteria Report

The Evaluation and Design Criteria Report shall include a chapter for accessibility, be signed by the design professional in responsible charge of the design, and shall:

1. Identify and document all elements of the site, buildings, and facilities, or portions thereof, which do not fully comply with the Title 24 accessibility regulations as required for new construction in accordance with Appendix D.

2. Where elements of the buildings, sites, or facilities, or any portion thereof do not fully comply with Title 24, indicate the proposed method for remediation of the deficiency.

3. Identify any additional data collection and condition assessment to complete the design. Identify locations and specific elements for the additional assessment.

**Submit with the Evaluation and Design Criteria Report:**

Approved or “as-built” building plans, specifications and associated construction documents that accurately depict the existing construction related to accessibility.

# PROVISIONS FOR ACCESS COMPLIANCE DESIGN, REVIEW AND APPROVAL FOR REHABILITATION OF EXISTING NON-CONFORMING BUILDINGS, SITES, AND FACILITIES FOR USE AS PUBLIC SCHOOLS

## APPENDIX D

### D.1. - General.

(a) A site, which is not currently a school site, on which one or more non-conforming buildings exist, shall be rehabilitated for use and considered to be a new school site for application of accessibility regulations contained in Title 24, California Code of Regulations, currently effective edition (herein referred to as "Title 24"). All existing buildings, sites, and facilities at a new school, regardless of use, shall be rehabilitated for accessibility. Such rehabilitation shall be reviewed and approved by the Division of the State Architect/Access Compliance (DSA/AC).

Reference: Title 24, Part 1, Chapter 4, Sections 4-302 and 4-307(a) & (b); Chapter 5, Sections 5-101, 5-102, 5-109, and 5-110.

(b) Rehabilitation of any new school, including all buildings and facilities, shall comply with the regulations adopted by the DSA/AC which are contained in Title 24, currently effective edition.

Reference: Title 24, Part 1, Chapter 4, Sections 4-302 and 4-307(a) & (b); Chapter 5 Section 5-101.

### D.2. - Scope.

These provisions shall apply to all buildings, sites, and facilities (including temporary and emergency buildings and facilities) utilizing state funds, county, or municipal funds, or the funds of any political subdivision of the state, for the rehabilitation of any elementary school, secondary school, or community college including the University of California, the California State University, and the various community college districts.

Reference: Title 24, Part 1, Chapter 4, Section 4-307(a) & (b); Chapter 5, Section 5-101; Title 24, Part 2, Chapter 1, Section 101.17.11; Government Code 4451(e).

### D.3. - Application of State Building Standards for Accessibility.

When applying accessibility building standards per Title 24, all existing non-conforming buildings, including related sites and facilities that are rehabilitated, regardless of use, are considered to be new construction, and shall fully comply with all accessibility regulations as required for the construction of new buildings, sites, and facilities as contained in Title 24, currently effective edition. Since rehabilitation projects are considered new construction, Title 24, Part 2, Chapter 11B, Section 1134B for existing buildings does not apply.

Reference: Title 24, Part 1, Chapter 4, Section 4-307(a) & (b).

### D.3.1 - Application of Federal Standards for Accessible Design.

Rehabilitation of buildings, sites, and facilities shall meet or exceed the requirements of Title III, Subpart D of the federal Americans with Disabilities Act of 1990 for new construction including the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).

Reference: Government Code 4451(d); Title 24, Part 2, Chapter 1, Section 101.17.11.

### D.4. - DSA/AC Definitions.

**New School Site:** location with one or more existing non-conforming buildings not currently a school site.

**Non-Conforming Building:** any building that (1) has not been rehabilitated for accessibility and approved by the DSA/AC, and (2) exists on a location which is not an existing school site.

**Rehabilitation:** the accessibility evaluation, report, design, and all construction work —to construct any new elements, or the alteration of any existing elements — required to bring the buildings, sites, and facilities, or portions thereof, into full and complete compliance with the accessibility regulations contained in Title 24, currently effective edition.

## D.5. - Accessibility Evaluation

The accessibility evaluation shall include visit(s) to the sites, buildings, and facilities. Data collection, analysis, and evaluation of existing site, building, and facility conditions shall be performed in order to comply with Provision 3.

## D.5.1 - Data Collection and Analysis:

(a) In compliance with Title 24 accessibility regulations and in accordance with Provision D.3, the accessibility evaluation shall include (but shall not be limited to) the analysis and evaluation of the following items:

**Approach:** Off-site paths of travel, on-site paths of travel, parking, passenger drop-off and loading zones, ground surface, walks and sidewalks, curb ramps, pedestrian ramps, stairs, and hazards.

**Building Plan/Design:** Entrances, horizontal access, vertical access, floors and levels.

Note: new schools are not entitled to elevator exemptions.

**Occupancy Requirements:** Group A, B, E, H, I, M, and R occupancies, outdoor occupancies, and warehouses.

**General Construction Requirements:** Bathing and toilet facilities, elevators, special access (wheelchair) lifts, water fountains, telephones, kitchens, swimming pools, signage, employee areas, doors and gates, stairs, ramps, built in seating, tables, counters, vending machines, storage, space allowance and reach ranges, parking structures, turnstiles and pedestrian-controls, corridors, hallways, exterior exit balconies, aisles, areas for evacuation assistance, alarms, controls and operating mechanisms, ATM and point-of-sale machines, floor surfaces.

Reference: Title 24, Part 2, Chapter 11B.

(b) The data collection and analysis of items in Provision D.5.1 (a) shall be utilized to develop an Accessibility Evaluation Report. The Accessibility Evaluation Report shall be submitted with the design documents indicated in Provision 8 and shall be in accordance with Provision D.6.

## D.6. - Accessibility Evaluation Report

(a) The Accessibility Evaluation Report shall be based on the data collection, analysis, and evaluation indicated in Provisions D.5 and D.5.1. The report shall identify and document all elements of the site, buildings, and facilities, or portions thereof, which do not fully comply with the accessibility regulations as required for new construction per Provision D.3. Where the Accessibility Evaluation Report indicates that the buildings, sites, or facilities, or any portion thereof do not fully comply with Title 24 per Provision 3, the rehabilitation shall be designed to comply with all accessibility requirements of Title 24, currently effective edition. The Accessibility Evaluation Report shall be the basis for review of plans and specifications submitted per Provision D.8, for the rehabilitation required per Provision D.1.

(b) The design professional in responsible charge of design, shall stamp, sign and submit the Accessibility Evaluation Report to the DSA/AC, along with the other documents required per Provision D.8.

## D.7. - Application, Review, and Approval of Drawings and Specifications.

The application, review, and approval of the rehabilitation of non-conforming buildings, sites and facilities shall be in accordance with Title 24, Part 1, Section 5-103, 5-109, and 5-110.

## D.8. - Documents: Plans and Specifications.

(a) Documents including plans and specifications for the rehabilitation of any existing non-conforming buildings, sites, and facilities or portion thereof, shall be submitted to the DSA/AC and provide for the design necessary for full compliance with all accessibility regulations contained in Title 24, currently effective edition. The design professional shall indicate the rehabilitation design needed for all elements identified in the Accessibility Evaluation Report per Provision D.6 (a), and shall stamp and sign all rehabilitation plans and specifications.

(b) Plans shall clearly show all elements and features that are required to comply with accessibility regulations to the same degree and level of detail as if they were being submitted as new buildings, sites, or facilities for DSA access compliance review. Plans shall be legible, sufficiently detailed, cross-referenced, and shall have sufficient dimensions to be readily interpreted for DSA access compliance review.

(c) "As-built" documents (plans and specifications) can be submitted, however such documents shall contain the same degree and level of detail as indicated in Provision D.8 (b). The design professional in responsible charge of design shall confirm and certify by stamp and signature that the "as-built" documents accurately and fully depict the existing building, site, and facility conditions related to accessibility. In addition to "as-built" documents, the design professional shall submit plans and specifications per Provision D.8 (a) -(b), to indicate the rehabilitation design needed for all elements identified in the Accessibility Evaluation Report per Provision D.6(a).

(d) Where the original "as-built" building plans and specifications are not available, “as-built” plans and specifications shall be prepared that accurately depict the existing building, site, and facility conditions per Provision D.8 (a) & (b) in order to confirm compliance with the items listed in Provision D.5.1 (a).

Reference: Title 24, Part 1, Chapter 4, Section 4-317; Sections 5-103 & 5-109.

## D.9. - Historical Buildings and Properties

The California Building Code (CBC) requires non-conforming buildings converted to school use to fully comply with the current building regulations for new construction. However, the State Historical Building Code (SHBC) — contained in C.C.R., Title 24, Part 8 (reprinted in CBC, Chapter 34, Division II) — requires state agencies to apply the SHBC to qualified historical buildings and properties, at the discretion of the school district or property owner, to preserve the historical significance or character-defining features of the building or property.

Adopted regulations governing construction of new buildings for accessibility for persons with disabilities (regular code) must be applied to existing, non-conforming, qualified historical buildings or properties converted to school use, unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property. If the historical significance or character-defining features are found to be threatened, alternative provisions for access may be applied — pursuant to the SHBC — provided that, in addition to other conditions, sufficient justification is submitted to the DSA to substantiate such alternatives. The proposals, supporting justification, and proposed alternative provisions shall be submitted as a component of the Historic Structures Report outlined in Appendices L and M.

The application of any alternative standards for qualified historical buildings providing accessibility to persons with disabilities — done on a case-by-case or item-by-item basis — shall not be applied to an entire building or structure without individual consideration of each item. This same case-by-case, item-by-item analysis shall also apply to a designated historic site beyond the immediate structure, if these elements are considered an integral part of, and significant to the historic structure or district.

# REQUIREMENTS FOR THE EVALUATION AND DESIGN CRITERIA REPORT – FIRE & LIFE SAFETY CHAPTER

## APPENDIX E

### E.1 - Procedures for DSA Approval of the Evaluation and Retrofit Design

During the schematic phase of the project, the owner or the design professional in responsible charge of design shall perform initial data collection and assessment of the building and prepare and sign an Evaluation and Design Criteria Report. The Report shall establish the criteria for evaluation and design of the rehabilitation by identifying deficiencies in the existing site and building conditions — and any elements intended for reuse — and proposing remediation in compliance with Title 24 regulations and Appendix F. The Report shall be submitted to the DSA for review and approval prior to proceeding with design development of the rehabilitation. The DSA shall review the Report to determine that each item identified in this Appendix has been satisfactorily addressed. If the DSA determines that one or more items are not satisfactorily addressed, or the DSA does not concur with any of the proposals, the Report shall be returned to the design professional for correction. Upon concurrence that all items have been satisfactorily addressed by the proposals in the Report, the DSA shall approve, sign and return a copy of the signed Report to the owner.

If changes to the approved criteria are determined necessary during design development and completion of construction documents, the project design professional shall submit an amendment to the Report to the DSA for approval.

Upon completion of the design, the plans and specifications shall be submitted to the DSA for approval per the provisions of Part 1, Title 24.

### E.2 - Initial data collection and assessment

Initial data collection and assessment shall include:

1. Site visit(s) to the building.

2. Data collection of existing site and building(s) fire protection systems, water supply, equipment and devices, access, and methods of egress in accordance with Appendices F and H.

3. Review of original plans, specifications and associated construction documents. Where original building and site plans and specifications are not available, “as-built” plans shall be prepared that accurately depict the existing site and building(s) fire and life safety concerns, per Item 2 above.

### E.3 - Evaluation and Design Criteria Report

The Evaluation and Design Criteria Report shall include a chapter for fire and life safety, be signed by the design professional in responsible charge of the design, and shall:

1. Describe the site and building(s) fire protection systems, water supply, equipment and devices, access, and methods of egress in accordance with Appendix F.

2. Identify proposed new systems, equipment and devices for fire and life safety.

3. Identify and describe the physical condition of the existing systems, equipment and devices that will be intended for reuse.

4. Based on data collection and review of original construction documents, identify potential deficiencies in the proposed existing systems, equipment and devices that are intended for reuse; and propose the method for remediation of the deficiencies.

6. Propose the program for additional data collection and condition assessment to complete the design. Identify locations and specific systems, equipment and devices for the additional assessment.

**Submit with the Evaluation and Design Criteria Report:**

1. Approved or “as-built” building plans, specifications and associated construction documents that accurately depict the existing construction.

2. Available system test reports of the existing construction.

# PROVISIONS FOR FIRE AND LIFE SAFETY DESIGN REVIEW AND APPROVAL FOR REHABILITATION OF EXISTING NON-CONFORMING BUILDINGS FOR USE AS PUBLIC SCHOOLS

## APPENDIX F

### F.1. - Fire Protection

In accordance with Section 4-307, Part 1, Title 24, C.C.R., an existing non-conforming building rehabilitated for use as a school building is considered, for the purpose of the application of Title 24, to be a new school building. Furthermore, a site, which is currently not an existing school site, on which one or more existing non-conforming buildings are rehabilitated for use as school building(s) is considered to be a new school site for the purpose of application of Title 24. Therefore, such sites and buildings, if rehabilitated for public school use with state School Facility Program (SFP) funds, shall be subject to the Green Oaks Family Academy Elementary School Fire Protection Act (Section 17074.50 of the Education Code). If SFP funds are not utilized for rehabilitation, such sites and buildings shall comply with current code regulations and shall not be subject to the requirements of the Green Oaks Family Academy Elementary School Fire Protection Act.

This means that existing non-conforming buildings rehabilitated for school use with state funds, must be equipped with automatic fire sprinklers and automatic fire alarm and detection systems throughout. With regard to installation of automatic fire sprinklers in existing, unequipped, non-conforming building(s), school districts must evaluate the adequacy of water supply for fire sprinklers, fire hydrant locations and distribution to support fire fighting operations in buildings being considered for conversion to school use. (Refer to Division III, Fire Protection, State Appendix III-AA, Fire-Flow Requirements for Buildings; State Appendix III-BB, Fire Hydrant Locations and Distribution within the California Fire Code, Part 9, Title 24.)

### F.2. - Fire Department Access and Egress

Existing, non-conforming buildings or sites rehabilitated for school use require vehicle access from all-weather hard-surfaced (suitable for use by fire apparatus) right-of-way not less than 20 feet in width. Such right-of-way shall be unobstructed and maintained only as access to the public street. Gate entrances to school grounds shall also be provided for entrance by fire apparatus, ambulances and police vehicles. Gate openings shall be of sufficient width to accommodate the emergency vehicles used by the fire protection and law enforcement agencies serving the school. (Refer to Sections 3.05 and 3.16, Title 19.)

### F.3. - Location on Property

Existing non-conforming buildings, and/or portions within, to be rehabilitated for school use shall front directly on a public street or an exit discharge not less than 20 feet in width. The exit discharge to the public street shall be a minimum 20-foot wide right-of-way, unobstructed and maintained only as access to the public street. At least one required exit shall be located on the public street or on the exit discharge. (CBC Section 305.3)

School grounds may be fenced and gates therein may be equipped with locks, provided that safe dispersal areas based on 3 square feet per occupant are located between the school and the fence. Such required safe dispersal areas shall not be located less than 50 feet from school buildings. (CBC 1007.3.11)

### F.4. - Construction, Height and Allowable Area

Existing, non-conforming buildings being considered for conversion to school use, should be limited to single-story if possible, as school buildings two or more stories in height are required to be a minimum of one-hour fire-resistive construction. The allowable area of a school building is 9,100 square feet for Type V-N construction, which is the most common building construction type. The area or size of a school building may be increased if it is adequately separated by yards, if travel distance to exits is reduced, or if the building is provided with automatic fire sprinklers throughout. (CBC 305.2)

## F.5. - Exiting Provisions

In evaluating an existing building for rehabilitation as a public school, all of the exiting provisions for educational occupancies within the current code shall be applied, especially those dealing with one-hour corridors, number and width of exits, and travel distance to exits. However, this list is not all inclusive.

## F.6. - Special Provisions

School districts evaluating the rehabilitation of existing, non-conforming buildings for use as primary or elementary schools, should pay close attention to the special provisions of CBC 305.2.3 summarized below.

Rooms used for daycare purposes, kindergarten, first- or second-grade pupils shall not be located above or below the first story.

Exceptions:

1. Basements or stories having floor levels located within 4 feet, measured vertically, from adjacent ground level at the level of exit discharge, provided the basement or story has exterior exit doors at that level.

2. In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten, first- and second-grade children or for day-care purposes may be located on the second story, provided there are at least two exterior exit doors for the exclusive use of such occupants.

# REQUIREMENTS FOR THE EVALUATION AND DESIGN CRITERIA REPORT - MECHANICAL, PLUMBING AND ELECTRICAL BUILDING SYSTEMS, EQUIPMENT AND DEVICES CHAPTERS

## APPENDIX G

### G.1 - Procedures for DSA Approval of the Evaluation and Retrofit Design

During the schematic phase of the project, the owner or the design professional in responsible charge of design shall perform initial data collection and assessment of the building and prepare and sign an Evaluation and Design Criteria Report. The Report shall establish the criteria for evaluation and design of the rehabilitation in accordance with Title 24 regulations and Appendices J and K by: 1) identifying deficiencies in the existing site and building conditions and any elements intended for reuse, 2) proposing remediation of the deficiencies, and 3) proposing testing and condition assessment requirements for systems, equipment and devices considered for reuse. The Report shall be submitted to the DSA for review and approval prior to proceeding with design development of the rehabilitation. The DSA shall review the Report to determine that each item identified in this Appendix has been satisfactorily addressed. If the DSA determines that one or more items are not satisfactorily addressed or the DSA does not concur with any of the proposals, the Report shall be returned to the design professional for correction. Upon concurrence that all items have been satisfactorily addressed by the proposals in the Report, the DSA shall approve, sign and return a copy of the signed Report to the owner.

If changes to the approved criteria are determined to be necessary during design development and completion of construction documents, the project design professional shall submit an amendment to the Report for the particular discipline to the DSA for approval.

Upon completion of the design, the plans and specifications shall be submitted to the DSA for approval per the provisions of Part 1, Title 24.

### G.2 - Initial data collection and assessment

Initial data collection and assessment shall include:

1. Site visit(s) to the building.
2. Data collection of existing site and building systems in accordance with Appendix H.
3. Review of original plans, specifications and associated construction documents, including systems test reports. Where original building plans and specifications are not available, “as-built” plans shall be prepared that accurately depict the existing building systems.

### G.3 - Evaluation and Design Criteria Report

The Evaluation and Design Criteria Report shall include a chapter for each discipline, be signed by the design professional in responsible charge of the design, and:

1. Describe the existing building(s) systems.
2. Identify proposed new building systems, equipment and devices.
3. Identify and describe the physical condition of the building systems, equipment and devices that will be intended for reuse.
4. Propose the methodology for evaluation and design of the building systems for rehabilitation. Include any preliminary calculations for justification.
5. Based on data collection, review of original construction documents, preliminary analysis, and results of any new testing performed, identify potential deficiencies in the proposed existing building systems, equipment and devices intended for reuse, and propose the method for remediation of the deficiencies.
6. Propose the program for additional data collection, condition assessment and system testing requirements to complete the design. Identify locations and specific equipment/devices for the additional tests.

**Submit with the Evaluation and Design Criteria Report:**

1. Approved or “as-built” building plans, specifications and associated construction documents that accurately depict the existing construction.
2. Available system test reports of the existing construction.

# DATA COLLECTION FOR SITE AND BUILDING SYSTEMS, EQUIPMENT AND DEVICES PROPOSED FOR CONTINUED USE

## APPENDIX H

**H.1 - Data Collection**. Data collection shall be performed to determine the "as-built" conditions of an existing building's accessibility, fire and life safety, mechanical, plumbing and electrical systems being proposed for continued use. Knowledge of the existing construction shall be determined for all building systems, equipment and devices applicable to the proposed use of the building. Data collection shall be directed and observed by the project design professional in general responsible charge of the design or the delegated architect/engineer(s) with the appropriate subject matter expertise.

**H.2 - Data collection requirements.** Information shall be obtained for **all** building systems, equipment and devices applicable to the proposed use of the building, to the extent possible, from original construction documents including design drawings, specifications, test records and quality assurance reports covering original construction and subsequent modifications to the structure. The information shall be verified, or when missing, determined, by condition assessment and systems testing. Qualified test data from the original construction may be accepted, in part or in whole, by the DSA to fulfill any test requirements. Existing structural framing shall be identified for evaluation by the project architect/structural engineer for gravity and lateral support of the equipment/devices.

**H.3 - Condition assessment.** Condition assessment is the determination of both physical configuration and physical condition of the building's systems, equipment and devices. Assessment shall be performed by visual inspection of assessable equipment/devices, and may require removal of finish materials or fireproofing or the use of scoping equipment to obtain access. The condition of the existing structural framing shall be verified for support of the equipment/devices.

The minimum number of samples for condition assessment to be performed shall be as required to validate **all** existing systems, equipment and devices proposed for reuse, including identification of support framing.

**H.4 - Systems, Equipment and Device Testing.** Existing systems, equipment and devices that are intended for continued use shall be evaluated by standardized or state-of-the-practice test procedures when necessary to validate conformance with performance and safety requirements of current model code, and may include, but not be limited to the following. Testing shall be performed by a DSA approved laboratory or a Nationally Recognized Testing laboratory as appropriate.

**Electrical: See Appendix K.**

- Panels
- Breakers
- Feeders
- Available Fault Current

**Mechanical: See Appendix J.**

- Test and balance (pre-test including outside air quantities)
- Duct leakage
- Indoor air quality
- Efficiency for whole building by qualified energy auditor

**Fire Life Safety: See Appendix F.**

- Fire sprinkler system
- Fire alarm and detectable warning systems
- Water supply (available water pressure)

**Related Safety: See respective appendices.**

- Asbestos/hazmat removal

# POLICIES AND PROVISIONS FOR DESIGN AND APPROVAL OF MECHANICAL/PLUMBING SYSTEMS AND EQUIPMENT FOR THE REHABILITATION OF EXISTING NON-CONFORMING BUILDINGS FOR USE AS PUBLIC SCHOOLS

## APPENDIX J

### J.1 - General

For rehabilitation of any existing building or portion of a building for use as a public school, regardless of whether the rehabilitation constitutes a change in occupancy/use, new or existing mechanical/plumbing systems and equipment shall comply with the requirements of Title 24, C.C.R., currently effective edition. These policies and provisions are applicable to existing non-conforming buildings currently being used or having previously been used for educational purposes. The systems, equipment and components should be evaluated for their configuration, condition and capacity to service the rehabilitated space.

The existing mechanical systems and equipment shall include, but not be limited to: air-handling units, fan coil units, furnaces, steam and hot water boilers, refrigeration systems, exhaust fans, evaporative coolers, water heaters, and associated equipment. The existing plumbing systems shall include, but not be limited to, the water, sewer, fuel, and fire sprinkler systems. Evaluation of inaccessible systems may necessitate removal of existing finishes or framing materials for observation.

**Definition:**

Rehabilitated space is defined as the area of the building that is undergoing a change in use to a public school building. Where only a portion of a building is undergoing change to a public school building, the rehabilitated space:

- Shall be separated vertically from the adjacent non-school portion by code-compliant rated wall assemblies, including area/occupancy separation walls, and by seismic separation joints where required by structural regulations.
- Shall be separated horizontally from the adjacent non-school floors, immediately above or below, by code-compliant rated floor assemblies; and, the entire building shall be equipped with an approved automatic fire sprinkler system while the portion of the building occupied by the school, shall be equipped with an approved automatic fire alarm and detection system.
- Shall include any area(s) required for egress/exiting from the public school that is located outside the public school area.

### J.2 - Mechanical/Plumbing Policies for Rehabilitation of Existing Systems and Equipment

1. All newly constructed mechanical/plumbing elements, components and systems in the rehabilitated space shall comply with Title 24, C.C.R., currently effective edition, including anchorage/bracing for structural forces and displacements.

2. Existing mechanical/plumbing systems and components of the rehabilitated space intended for continued use shall be evaluated for compliance with Title 24, C.C.R., currently effective edition. All existing mechanical/plumbing systems and components not in compliance with the code shall be retrofitted to comply with Title 24, C.C.R., with the following exceptions:

   a. Continued use of existing mechanical equipment that meets all current code requirements other than energy provisions, will be acceptable provided equipment meets minimum efficiency standards per 1995 Title 24, C.C.R.; or,

   b. If the existing building, systems and equipment, including all modifications for rehabilitation meet current energy performance standards per Title 24, C.C.R., no individual equipment upgrades will be required provided that the individual equipment meets all current code requirements other than energy provisions.

3. For rehabilitated buildings served by a remote central plant not located on the school site, and in which the central plant is not owned by the school district, the central plant may be considered as a utility and the existing elements, components and systems at the plant will not require retrofit to compliance with current Title 24 requirements, provided the existing elements, systems and components have sufficient capacity to serve the school use. All newly constructed or retrofitted mechanical/plumbing elements, components and systems required to support the school facility at the central plant shall comply with Title 24, C.C.R., currently effective edition.

4. New or existing HVAC/plumbing systems and equipment sharing service to both the school and non-school facilities within the building shall comply or be retrofitted to comply with Title 24, C.C.R., currently effective edition, in accordance with Items 1 and 2 above. Components of systems crossing building separation joints shall be capable of accommodating the combined displacements of the respective portions during a seismic event.

5. The presence of toxic or hazardous materials/substances in existing systems, equipment or components (asbestos, lead, etc.) shall be disclosed/identified and remediated in accordance with the currently effective federal, state, and local regulatory requirements.

## J.3 - Evaluation of Existing Mechanical and Plumbing Systems and Equipment for Continued Use

The policies above provide the basis for evaluation of the existing mechanical/plumbing systems, equipment and devices being considered for continued use in a building undergoing rehabilitation. Considerations include condition assessment, determination of the capacity/performance of the existing systems and equipment, and determination of the proposed demands for comparison with the capacities.

### J.3.1. - Condition Assessment of Mechanical/Plumbing Systems and Equipment for Continued Use:

The existing mechanical systems and equipment for continued use shall include, but not be limited to: air-handling units, ducting, fan coil units, furnaces, steam and hot water boilers, refrigeration systems, exhaust fans, evaporative coolers, water heaters, and associated equipment. The existing plumbing systems shall include, but not be limited to, the water, sewer, fuel, and fire sprinkler systems. Evaluation of inaccessible systems may necessitate removal of existing finishes or framing materials for observation.

1. The existing mechanical/plumbing systems and equipment shall be evaluated for compliance with Title 24, C.C.R., and any deficiencies related to the following considerations shall be identified:

    a. Physical Configuration and Condition:

        i. The physical system and equipment shall be evaluated for any deficiencies or missing components that may need to be retrofitted or added to comply with current model code.

        ii. Existing equipment and devices shall be listed, labeled or certified by a Nationally Recognized Testing Laboratory (NRTL). Equipment not so identified may require replacement, unless it can be tested in place by a NRTL.

        iii. Adequate clearance around existing equipment for serviceability; may require relocation.

        iv. Existing ducts shall be evaluated and tested for leakage.

    b. Age and Serviceability: The age of the equipment may determine whether it is serviceable and still supported by the original manufacturer. Original equipment may be obsolete and replacement parts may be unavailable. Equipment that is unserviceable, or unable to be retrofitted to meet current code, shall be replaced.

    c. Operating Condition:

        i. Equipment shall be maintained in conformance with the applicable code provisions at the time of construction. Any missing parts shall be identified and replaced.

        ii. Equipment and its enclosure should have no damage or open holes exposing live parts. Any damage, including water damage and rust, shall be identified and replaced.

## J.3.2. - Determine Capacity/Performance of Existing Mechanical/Plumbing Systems and Equipment for Continued Use

Existing mechanical/plumbing systems and equipment that have been deemed appropriate for continued use in accordance with Section J.3.1., must be evaluated for their capacity/performance to service the proposed school use and for compliance with Title 24, C.C.R. Compliance shall be substantiated by calculation and data collection, including tests of the systems and equipment, in accordance with Appendix H. Considerations shall include, but not be limited to, the following:

**MECHANICAL SYSTEM CONSIDERATIONS:**

**Hazardous and Combustible Materials:**

1. Plenum return combustibles: Systems and equipment must be suitable for plenum construction, such as plenum-rated cabling.
2. Opening protection: Protection at penetrations of all rated wall, floor, roof and ceiling assemblies shall be provided; such as fire/smoke dampers in duct penetrations of rated walls.
3. Asbestos/hazmat removal: Existing equipment, duct lining and materials concealing mechanical components may contain toxic or hazardous substances which will require removal prior to retrofitting work, per currently effective regulatory requirements, including but not limited to, asbestos duct insulation, removal of lead based paints or asbestos based wall and framing materials.
4. Mold elimination: Existing equipment, condensate drain pans and finish/framing materials around the equipment may be subject to mold growth requiring remediation in accordance with state and local regulatory requirements. The building air-handler shall have a sloped drain pan to prevent water accumulation.

**Water Heating Systems, Combustion, Cooling Refrigeration and Heat Rejection Equipment:**

5. New Occupancy/Use System: Evaluation of the existing building systems and equipment should be based on the minimum cooling/heating demands and required energy efficiencies for the proposed new occupancy/use requirements in accordance with the Policy Statements above.
6. Chillers and boilers in same room: Per current Title 24, C.C.R., boilers require a separate one-hour rated room from chillers.

**Space Conditioning and Climate Control:**

7. Pre-Test and Balance of HVAC System (including outside air quantities): A pre-test and balance of the system, conducted by a Test and Balance Agency, **shall be required** to determine if the existing HVAC system has adequate capacity to provide required ventilation air, system pressurization (CFM), and conditioned air. The pre-test and balance of the system shall identify deficiencies in the system, retrofitting requirements for existing equipment, and/or whether rebalancing will satisfy system requirements for the proposed use.
8. Outside air: The existing air handling system shall be evaluated for outside air quantities suitable for the new occupancy use based on the minimum rate of outside air per occupant as listed in the current Title 24, C.C.R.
9. Indoor air quality: The building shall be evaluated for potential indoor air quality hazards, which include, but are not limited to:
    - Current and proposed minimum ventilation rates per Title 24, C.C.R. requirements. Ventilation is required for all areas housing equipment which produce hazardous fumes, such as copy machines, break rooms, janitor closets, etc.
    - Filtered air supply and contaminant control – All air supply to building shall be filtered for control of contaminants, and shall be evaluated for filter efficiency, location and gages.
    - Building's outdoor air intakes shall be located away from plumbing vents, building exhaust, traffic areas where fumes from vehicles can be pulled into the building.

10. High-rise building stairwell requirements: Stairwell pressurization and smoke removal in high-rise buildings shall comply with the requirements of Title 24, C.C.R., currently effective edition. High rise exit stairwells shall be pressurized by supplying outdoor air directly into stairwell to prohibit smoke leakage into the stairwell during a fire.

11. Atrium requirements: Pressurization and ventilation systems are required to prevent the collection of smoke and to exhaust smoke in case of fire.

**Energy Efficiency:**

12. Minimum SEER (COP) for HVAC equipment: Equipment and systems, in relatively new and good condition, shall be evaluated and upgraded as necessary to meet the Title 24 requirements in accordance with Policy Statements 2, 2a and 2b above.

13. Opinion of efficiency for whole building by qualified energy auditor: Evaluation of the building as a whole may determine compliance with Title 24 requirements in accordance with Policy Statements 2, 2a and 2b above.

**PLUMBING SYSTEM CONSIDERATIONS:**

The general requirements above should provide the basis for evaluation of the existing plumbing systems, equipment and components of the building and site identified, but not limited to, below:

**Water and Sewer Systems:**

1. Water supply: The water supply to the site and/or facility shall be evaluated for capacity to service the school building.

2. Pipe materials: Pipe materials for continued use in water distribution shall be evaluated for compliance with Sections 604 and 811, California Plumbing Code (C.P.C.), currently effective edition, and the usage capacity of the new school. ABS and PVC piping shall be acceptable as follows:

    a. For sanitary drainage systems (e.g. toilet and lavatory drainage), the use of ABS or PVC (Schedule 40 DWV) is limited to relocatable school buildings.

    b. For storm drainage systems (e.g. roof drainage), the use of ABS or PVC (Schedule 40 DWV) is allowed without exception.

    c. For vent systems (venting of sanitary drainage systems) the use of ABS or PVC (Schedule 40 DWV) is allowed without exception.

    d. Section 811.2.1, C.P.C., allows the use of ABS or PVC for acid waste drainage systems in school laboratories (i.e., science/photography lab).

3. Plumbing fixtures: Where existing plumbing fixtures are being considered for continued use of the rehabilitated space, additional fixtures, replacement or fixtures retrofitted for accessibility requirements shall be determined and included in the demand for water supply and sewer capacity.

4. Sewer capacity: The sewer system servicing the site and/or facility shall be evaluated for capacity to service the school building.

5. Roof drainage: Roof drainage will be required to comply with current model code requirements.

**Fuel Systems:**

6. Fuel supply: The fuel supply to the site and/or facility shall be evaluated for capacity to service the school building(s). Anchorage will be required per structural requirements.

7. Gas piping: Gas piping shall be evaluated for capacity to meet the maximum demand without undue loss of pressure between the point of supply (meter) and the appliance. Anchorage will be required per structural requirements.

8. Earthquake Actuated Shut-off Valve: Gas piping system shall be evaluated to determine if an automatic shut-off valve is present within the existing fuel gas piping system. The DSA/SS requires this valve for school building construction in the event of a seismic disturbance and, given a change in use/occupancy, this valve may not be part of the existing fuel gas piping system.

**Hazardous Materials:**

9. Asbestos/lead hazmat removal: Existing equipment, plumbing and piping and materials concealing plumbing components may contain toxic or hazardous substances which will require removal prior to retrofitting work per Department of Toxic Substances Control (California Environmental Protection Agency) and Department of Health Services (DHS) regulations, including but not limited to, lead pipe, lead solder, asbestos insulated pipes, removal of lead based paints or asbestos based materials to gain access to systems.
10. Drinking water: All drinking water samples should be analyzed in accordance with DHS requirements by a DHS-certified laboratory. In 1986, lead solder was banned from use in drinking water plumbing systems. Therefore, buildings constructed prior to 1986, and those plumbed with copper pipe, must receive the water sampling. All tap samples for lead must be collected in accordance with DHS requirements and should be first draw samples (i.e., the first water to flow out of the tap). Piping shall be replaced if the water lead content level is unacceptable as defined by DHS.

**Fire Sprinkler Systems:**

10. The existing building shall be evaluated for fire sprinkler system equipment; refer to Appendix F. Existing fire sprinkler systems, equipment and devices that are non-compliant will require retrofit or replacement to comply with Title 24, C.C.R. requirements.

### J.3.3. - Determine Projected Load/Demand to Establish Adequacy of Existing Systems, Equipment and Devices for Continued Use:

The projected loads of the mechanical/plumbing system and equipment for the new school use, including adjustments for any new HVAC demands on the system, shall be determined and compared with the capacity of the existing systems and equipment Section J.3.2 above. If the existing mechanical/plumbing systems or equipment will not support the proposed use, then either new equipment or retrofit/replacement of the existing equipment will be required.

# POLICIES AND PROVISIONS FOR DESIGN AND APPROVAL OF ELECTRICAL SYSTEMS AND EQUIPMENT FOR THE REHABILITATION OF EXISTING NON-CONFORMING BUILDINGS FOR USE AS PUBLIC SCHOOLS

## APPENDIX K

### K.1 - General.

For rehabilitation of any existing building or portion of a building for use as a public school, regardless of whether the rehabilitation constitutes a change in occupancy/use, new or existing electrical systems and equipment shall comply with the requirements of Title 24, C.C.R., currently effective edition. These policies and provisions are applicable to existing, non-conforming buildings currently or previously in use for educational purposes. The systems, equipment and components should be evaluated for their configuration, condition and capacity to service the rehabilitated space. Evaluation of inaccessible systems may necessitate removal of existing finishes or framing materials for observation.

**Definition:**
Rehabilitated space is defined as the area of the building that is undergoing a change in use to a public school building. Where only a portion of a building is undergoing such change, the rehabilitated space:

- Shall be separated vertically from the adjacent non-school portion by code-compliant rated wall assemblies, including area/occupancy separation walls, and by seismic separation joints where required by structural regulations.
- Shall be separated horizontally from the adjacent non-school floors, immediately above or below, by code-compliant rated floor assemblies; the entire building shall be equipped with an approved automatic fire sprinkler system while the portion of the building occupied by the school shall be equipped with an approved automatic fire alarm and detection system.
- Shall include any area(s) required for egress/exiting from the public school that is located outside the public school area.

### K.2 - Policies for Rehabilitation of Electrical Systems, Equipment and Devices

1. All newly constructed electrical systems and equipment in the rehabilitated space shall comply with Title 24, C.C.R., currently effective edition. Electrical equipment and components shall be anchored/braced per structural requirements of Title 24.

2. Existing electrical systems and equipment within the rehabilitated space intended for continued use shall be evaluated for the proposed capacity requirements and for compliance with Title 24, C.C.R., currently effective edition. Existing systems and equipment may be deemed to comply with Title 24 requirements when supported by appropriate testing. All existing electrical systems and equipment not meeting the proposed capacity/performance requirements or not in compliance with the currently effective code shall be retrofitted to comply with Title 24, C.C.R.

3. For a rehabilitated school building served by a remote electrical facility not located within the rehabilitated building, any new or existing electrical systems and equipment servicing the facility shall comply with the provisions of Items 1 and 2 above.

4. For buildings in which only a portion of the building is being rehabilitated into a public school, any new or existing electrical systems and equipment located in the same building sharing service to both the school and non-school facilities shall comply with the provisions of Items 1 and 2 above. Components of systems crossing building separation joints shall be capable of accommodating displacements between the building portions that may occur during a seismic event.

5. The presence of toxic or hazardous materials/substances in existing electrical systems and equipment (asbestos, PCB, etc.) shall be identified/disclosed and remediated in accordance with currently effective federal, state and local regulatory requirements.

6. Electrical equipment and devices for new or continued use in the rehabilitated space shall be listed, labeled or certified for its use by a Nationally Recognized Testing Laboratory (NRTL) as recognized by the U.S. Department of Labor, Occupational Safety and Health Administration.

## K.3 - Evaluation of Existing Electrical Systems and Equipment for Continued Use

The policies above provide the basis for evaluation of the existing electrical systems, equipment and devices of the building and site intended for continued use. Considerations include condition assessment, determination of the capacity of the existing systems and equipment, and determination of the proposed demands for comparison with the capacities.

### K.3.1. - Condition Assessment of Existing Electrical Systems/Equipment and Fire Alarm Systems Proposed for Continued Use:

The existing electrical systems and equipment shall include, but not be limited to: switchboards/switchgear, panelboards, motor control centers, transformers, feeders, and associated equipment. The existing fire alarm systems shall include the fire alarm system and devices, the fire alarm panel and notification devices. Evaluation of inaccessible systems may necessitate removal of existing finishes or framing materials for observation.

1. The existing electrical systems/equipment and fire alarm/detectable warning systems shall be evaluated for compliance with Title 24, C.C.R.; deficiencies related to the following considerations shall be identified:
    a. Physical Configuration and Condition:
        i. The physical system/equipment/wiring shall be evaluated for any deficiencies or missing components that may need to be retrofitted or added to comply with current model code. Evaluation should include safety provisions, including but not limited to; electrical grounding systems, panel enclosures, feeder protection devices.
        ii. Existing equipment and devices shall be listed, labeled or certified by a Nationally Recognized Testing Laboratory (NRTL). Equipment not so identified may require replacement unless it can be tested in place by a NRTL.
        iii. The physical space and configuration of the existing equipment shall be identified to determine if space exists to add any devices necessary for the new school use. (Example: Space in distribution panels for additional breakers.)
        iv. Archaic systems, equipment or components shall be identified for replacement, including, but not limited to:
            a) Fused distribution panels,
            b) Deteriorating wiring.
        v. Adequate clearance from existing equipment for serviceability; may require relocation.
    b. Age and Serviceability: The age of the equipment/devices may determine whether the equipment/devices are serviceable and still supported by the original manufacturer. Original equipment may be obsolete and replacement parts may be unavailable. Equipment that is unserviceable or unable to be retrofitted to meet current code shall be replaced.
    c. Operating Condition:
        i. Equipment and wiring shall be maintained in conformance with the applicable code provisions at the time of construction. Any missing or defective parts shall be identified and replaced.
        ii. Equipment and its enclosure shall have no damage or open holes exposing live parts. Any damage, including water damage and rust, shall be identified and replaced.

### K.3.2. - Determine Capacity of Existing Electrical Systems and Equipment for Continued Use:

2. Existing electrical systems and equipment that have been determined appropriate for continued use in accordance with Section K.3.1 must be evaluated for the capacity to service the proposed school use. Existing systems and equipment may be deemed to comply with Title 24 requirements when qualified/quantified by the following tests and/or calculations:

    a. Utility: Ability of the existing service utility to provide adequate power for the new usage. If inadequate, the district may be required to replace transformers as directed by the service utility.

    b. Panels: Load calculations or load testing may determine whether the existing electrical "panel" equipment will support the proposed new school use.

        "Panel", as used herein, is defined as any panelboard, switchboard, motor control center, distribution panelboard, etc. Transfer switches and transformers are not defined as panels.

        Load requirements of the existing panel system may be determined by either:

        i. Calculation of the connected load in accordance with CEC, Article 220, or

        ii. Continuous Ammeter Recording Load Test (7 day), which reflects the maximum loading of the equipment over a minimum 7 day period. The maximum value recorded over this period shall be multiplied by 125% to establish the maximum demand.

    c. Breakers: Main and feeder breakers being proposed for continued use shall be tested by an approved electrical testing laboratory to verify that the breaker mechanisms function in compliance with original manufactures specifications.

    d. Feeders: The condition of the insulation of the existing feeders must be determined. Feeders that have been in service for more then 15 years shall be tested to insure that the cable insulation is within tolerance. High Potential test on older cable must be preformed or the cables must be replaced. If aluminum cables are encountered, the terminations must be checked to insure they were made per factory specifications; re-termination may be required.

    e. Equipment and Devices: Available Fault Current at each panel should be determined. The Interrupting Capacity (AIC) rating of existing equipment shall be checked to insure that it is adequately rated. New equipment will be rated for the available fault current.

### K.3.3. - Determine Projected Load/Demand to Establish Adequacy of Existing Systems, Equipment and Devices for Continued Use:

3. The projected loads of the electrical system and equipment for the new school use, including adjustments for any new HVAC or fire alarm demands on the system, shall be determined and compared with the capacity of the existing electrical systems and equipment per Section K.3.2 above. If the existing electrical system or equipment will not support the proposed use, then either new equipment or retrofit/replacement of the existing equipment will be required.

    a. A schematic single-line diagram shall be prepared with the major equipment labeled to identify equipment capacity and demand on the system, and shall include the following:

        i. Voltage.

        ii. Phase.

        iii. Ampacity.

        iv. Utility demand information, if available.

        v. Breaker and fuse sizes.

        vi. Cable size and insulation.

        vii. Load calculated for the school use in accordance with the current CEC.

    b. The projected loads shall be calculated for the school use in accordance with the current CEC.

### K.3.4. - Fire Safety Systems:

4. The existing building shall be evaluated to determine if equipped with a complete automatic fire alarm system intended for continued use. Refer to Appendix F. Existing fire alarm systems, equipment and devices that are non-compliant may require retrofit or replacement of electrical components to comply with Title 24, C.C.R. requirements.

# REQUIREMENTS FOR THE EVALUATION AND DESIGN CRITERIA REPORT - REHABILITATION OF HISTORIC BUILDINGS FOR PUBLIC SCHOOL USE

## APPENDIX L

### L.1 - Procedures for DSA Approval of the Evaluation and Retrofit Design

During the schematic phase of the project, the owner or design professional in responsible charge of design shall (1) perform initial data collection and assessment of the building, including site and building systems, equipment and devices proposed for continued use [see L.2 below], and (2) prepare and sign an Evaluation and Design Criteria Report defined below.

The Report shall establish the criteria for evaluation and design of the rehabilitation and the applicability of the State Historical Building Code (SHBC — described in Appendix M), when strict compliance with the regular code will adversely affect the historic fabric of the building. The Report shall be submitted to the DSA Historic School Program (HSP) Manager for review and approval prior to design development of the rehabilitation:

- The DSA shall review the Report to determine that each item in this Appendix is satisfactorily addressed.
- If one or more items are not satisfactorily addressed or the DSA does not concur with any of the proposals, the Report shall be returned to the design professional for correction.
- Upon concurrence that the proposals satisfactorily address all items in the Report, the DSA shall approve, sign and return a copy of the signed Report to the owner.

Approval to use the SHBC and the corresponding California Historical Building Code (CHBC) in the rehabilitation of an existing historic non-conforming building to a public school is a five-step process defined in Appendix M. The process includes:

1. Notification to the DSA of a historical project proposing to use the SHBC;
2. Preparation and submittal of a preliminary Historic Structures Report (HSR) to the DSA for approval presenting justification to use the SHBC (see L.3);
3. A pre-consultation meeting with the DSA prior to development of the Report;
4. Preparation and submittal of the Report to the DSA (see L.4); and
5. DSA approval of the Report.

If changes to the approved criteria are determined to be necessary during design development and completion of construction documents, the project design professional shall submit an amendment to the Report to the DSA for approval.

Upon completion of the design, the plans and specifications shall be submitted to the DSA for approval per the provisions of Part 1, Title 24.

Words underlined in this document are defined in Chapter 2, 2001, CHBC.

### L.2 - Initial data collection and assessment

Initial data collection and assessment of historical features, shall be performed in accordance with Section 1650A, Division VI-R, Title 24, C.C.R. and Appendix H, and shall include:

1. Site visit(s) to the building.

2. Data collection of the existing site and building's structural, mechanical, plumbing, and electrical systems; water supply; equipment and devices; accessibility; and methods of egress in accordance with Appendices C through K and M.

3. Review of original plans, specifications and associated construction documents. Where original building and site plans and specifications are not available, "as-built" plans shall be prepared that accurately depict the existing site and building(s) per Item 2 above.

## L.3. - Preliminary Historic Structures Report (HSR)

The second step of the historic building rehabilitation process to use the CHBC will be submittal of a preliminary HSR that must be reviewed, and the proposals accepted, by the DSA before submitting the project Report. A final HSR will be required within the Report. The preliminary HSR will focus on identifying and determining the character defining features which will be affected by the rehabilitation and which will require use of alternative design or construction methods from that required for non-historic structures.

The preliminary HSR will provide the following:

1. Copy of the approved nomination or documentation of the listing.
2. Concise history of the property including date of construction, dates of identifiable alterations, other significant dates such as change of use or end of occupancy.
3. Identification of areas of work required for rehabilitation of the building or structure.
4. Identification of character defining features affected by rehabilitation where use of the CHBC is proposed.

## L.4 - Evaluation and Design Criteria Report

The fourth step of the historic building rehabilitation process requires the preparation and submittal of a project Evaluation and Design Criteria Report for review and approval by the DSA. The Report shall include a Final Historic Structures Report (HSR) and a Project Design and Code Analysis.

**Final HSR:**

The final HSR in the Report will:

1. Document only the historic fabric requiring SHBC application per design and code analysis below.
2. Provide a significance ranking of the affected fabric (described below) to be used by the HSP Manager to assess the individual fabric elements for applicability of CHBC provisions.

   The rating system shall use the following rankings: 1 through 5, where 1 is non-historic fabric and 5 is the most significant historic fabric. While the scope of the HSR is limited to documenting the areas of work, the ranking system should be in relationship to the entire building. Example: The areas of work where application of the CHBC is required may be in the lobby and entrance areas of a building where the significance of the historic fabric is at its highest in relationship to the entire building. The HSR shall further define the ranking system specifically for the subject project.

   Example: (5) The highest rank, unique or singular element of character defining features of the building, such as an ornamental entranceway or mural; (4) character defining features that occur in relatively few locations, such as similar decorative entrances in several locations; (3) common character defining feature, such as baseboards, architraves and fenestration; (2) historic fabric, common throughout the building, such as lath and plaster or common flooring element; (1) non-historic fabric.

3. Include the following:
   a. Copy of the approved nomination or documentation of the listing.
   b. Concise history of the property including the date of construction, dates of identifiable alterations, other significant dates such as change of use or end of occupancy.
   c. Identification of areas of work required for rehabilitation of the building or structure.
   d. General photographs showing the entire building and the important character defining features.
   e. Photographs describing the character defining features necessitating application of the CHBC.

**Project Design and Code Analysis:**

To invoke the CHBC provisions of Chapters 8-1, 8-3 thru 8-6, 8-9 and 8-10, the designer must perform preliminary design and code analyses based on the provisions of regular code. Where a character-defining feature is affected by application of the regular code, alternate design using the CHBC may be proposed in the final Report (as defined in this Appendix).

Justification of the proposals shall be included in the Report, and shall:

1. Note the issue or problem and related code section;
2. Indicate alternate designs considered to determine if an alternative can alleviate the conflict with regular code;
3. Document where using the regular code affects character defining features, and explain how alternate methods achieve code compliance using the CHBC.

For structural rehabilitation, compliance with Chapter 8-7, CHBC, Alternate Structural Regulations, shall require compliance with Division VI-R, Title 24, in accordance with Section 4-307, Part 1, Title 24, C.C.R.

On a complex project, a "matrix" of the regular code issues and alternatives may help the designers and the DSA better understand the use of the CHBC. A table may be created with columns for the issues that are in conflict with the regular code and another column with proposed alternatives using the CHBC. Similar items may be "grouped" for simplicity (such as similar elements in multiple similar locations and circumstances). The DSA may require specific information on the design alternatives and the designer should be prepared to provide it. An example of a matrix is available from the DSA Historic School Program Manager.

**Submit with the Evaluation and Design Criteria Report:**

Approved or "as-built" building plans, specifications and associated construction documents accurately depicting existing construction and historical features of the building.

# POLICIES AND PROVISIONS FOR THE REHABILITATION OF HISTORIC BUILDINGS FOR PUBLIC SCHOOL USE

## APPENDIX M

*Words underlined in this document are defined in Chapter 2, 2001 CHBC.*

### M.1 - Background

For rehabilitation of existing buildings to public schools, owners of qualified historical buildings may request use of currently effective regulations in the State Historical Building Code (SHBC), and the implementing regulations of the California Historical Building Code (CHBC), when strict compliance with the regular code adversely affects the historic fabric of the building.

**Why use the CHBC?** Buildings and structures identified to contribute to the culture, community or heritage of a locality — and qualified as historical — are recognized by the state as being eligible for special consideration to retain those attributes that are historic during rehabilitation or subsequent change of use. The DSA recognizes that strict use of the regular code may create difficulties where rehabilitation attempts to retain the historic characteristics of a building or structure. The CHBC provides alternatives that 1) allow most of the historic characteristics to be retained while 2) achieving the performance objectives of the regular code.

The CHBC also provides provisions to address specific preservation issues not under DSA authority including *The Secretary of the Interior's Standards*, CEQA, and local design and preservation ordinances.

### M.2 - Definitions and Terminology

Terminology of historic preservation and school construction utilizes many of the same words, but with different meanings. For preservation terms, refer to Chapter 2 of the 2001 California Historical Building Code .

**State Historic Building Code.** The sections of the Health and Safety Code creating the SHBC program.

**California Historical Building Code.** The regulation created for application to qualified historical buildings and properties under the SHBC.

**Regular Code.** The adopted regulations governing design and construction or alteration of non-historical buildings, structures and properties within the jurisdiction of the enforcing agency. For school buildings, the adopted regulations are Title 24, C.C.R., currently effective regulations enforced by DSA.

### M.3 - Determine if Your Building or Structure is a Qualified Historical Building or Structure

There are a number of ways under the SHBC to qualify a building as historic. At its simplest:

1. Designation must follow the basic rules of the California Register of Historical Resources, and
2. Buildings shall have been identified to contribute to the culture, community or heritage of a locality.
3. Buildings and structures may be of significance to the local area.
4. A school district board may designate structures under their jurisdiction as historic.

### M.4 - DSA Acceptance of the State Historical Building Code (SHBC) for Rehabilitation of an Existing Historical Building to a Public School

To substantiate that the SHBC and the implementing regulations of the CHBC are applicable for use on a public school rehabilitation project, a five-step process shall be followed:

1. First, the school district or design team shall contact the DSA Regional Manager (who will then contact the Historic School Program Manager) at the earliest opportunity during the building/property selection process. The purpose is to notify the DSA of the historic project, discuss requirements for a preliminary Historic Structures Report (HSR), and to schedule a pre-Report consultation.
2. Second, the design team shall prepare and submit a preliminary HSR, as described in Appendix L, to the DSA for review and discussion by the Historic School Program Manager before the pre-Report consultation meeting.
3. Third, the DSA will conduct a pre-consultation meeting to discuss the proposals in the preliminary HSR and the requirements for the project Evaluation and Design Criteria Report.
4. Fourth, the design team shall prepare and submit the project Evaluation and Design Criteria Report as described in Appendix L.
5. Fifth, the DSA shall review and approve the Report prior to design development of the project.

## M.5 – Alternative Accessibility Provisions of Historical Buildings and Properties

The California Building Code (CBC) requires non-conforming buildings converted to school use to fully comply with the current building regulations for new construction. However, the SHBC contained in C.C.R., Title 24, Part 8 (also reprinted in CBC, Chapter 34, Division II) requires state agencies to apply the SHBC to qualified historical buildings and properties in order to preserve the historical significance or character-defining features of the building or property.

Unless strict compliance with the regular code will threaten or destroy the historical significance or character-defining features of the building or property, adopted building regulations governing the construction of new (non-historical) buildings for accessibility for persons with disabilities (regular code) must be applied to existing, non-conforming, qualified historical buildings or properties converted to school use. If the historical significance or character-defining features are found to be threatened, alternative provisions for access may be applied pursuant to the SHBC — provided that, in addition to other conditions, sufficient justification is submitted to the DSA to substantiate any claims that may be made regarding the use of such alternatives. Such claims, along with supporting justification and the proposed alternative provisions, shall be submitted as a component of the HSR (outlined in Appendix L).

The application of any alternative standards for qualified historical buildings providing accessibility to persons with disabilities shall be done on a case-by-case, item-by-item basis, and shall not be applied to an entire building or structure without individual consideration of each item. This same case-by-case, item-by-item analysis shall apply to a designated historic site, beyond the immediate structure, if these elements are considered as an integral part of, and significant to the historic structure or district.

## M.6 – Alternate Structural Regulations of Historical Buildings

For structural rehabilitation of a qualifying historic building, compliance with Chapter 8-7, Alternate Structural Regulations, and Chapter 8-8, Archaic Materials and Methods of Construction, of the CHBC shall require compliance with Division VI-R, Title 24, in accordance with Section 4-307, Part 1, Title 24, C.C.R.

## M.7 - Alternate Mechanical, Plumbing and Electrical Regulations of Historical Buildings

Continued use of the existing mechanical, plumbing and electrical building systems and equipment of a qualifying historic building may utilize the provisions of Chapter 8-9, Mechanical Plumbing Electrical Requirements, CHBC, and shall meet the provisions of Appendices G and K.

## M.8 – Alternate Fire Protection Requirements

Alternate fire protection systems in a qualifying historic building may utilize the provisions of Chapter 8-4, Fire Protection, CHBC, and shall meet the provisions of Appendices E and F.

**PRE-APPLICATION FOR APPROVAL OF EVALUATION & DESIGN CRITERIA REPORT FOR REHABILITATION OF EXISTING NON-CONFORMING BUILDING FOR USE AS PUBLIC SCHOOL**

Please print or type all information

Project Name: _____

Project Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Scope of Rehabilitation [description of building(s)], # of stories, etc.): _____

_____

_____

1. Approximate Total Floor Area (Sq. Ft.): _____ 2. Design Snow Load: _____

Name of Applicant: _____

(Acting For The Owner In The Legal Capacity of Agent Making Application For Approval Of Evaluation And Design Criteria Report) (Please Print)

Applicant's Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Applicant's E-mail Address: _____
(Required)

Applicant's Signature: _____ Date: _____

School District or Owner: _____

School District's Or Owner's Agent's Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

(___) _____ (___) _____
Phone # Fax # School District or Owner's Agent's Email Address (Required)

==========

For DSA Use Only

| FEE RETAINER | RETAINER DEPOSIT | DSA FILE NO. | DSA PRE-APP. NO. | DATE ASSIGNED |
|---|---|---|---|---|
| 2000 | | | | |

**Design and Evaluation Report Has Been Prepared By:**

_____ (  )
Architect or Structural Engineer in General Responsible Charge  Reg. No.  Phone #

Firm Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

E-mail Address of Architect/Structural Engineer in General Responsible Charge: _____
(Required)

If preparation of portions of the design and evaluation report was delegated, show name of the architect or registered engineer, firm name, and address.

Architect: _____ Reg. No.: _____ Phone #: (  ) _____

Firm Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Structural Engineer: _____ Reg. No.: _____ Phone #: (  ) _____

Firm Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Mechanical Engineer: _____ Reg. No.: _____ Phone #: (  ) _____

Firm Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Electrical Engineer: _____ Reg. No.: _____ Phone #: (  ) _____

Firm Name: _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

Owner's Peer Reviewer: _____ Reg. No.: _____ Phone #. (  ) _____

Mailing Address: _____

City: _____ County: _____ State: ___ Zip Code: _____

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